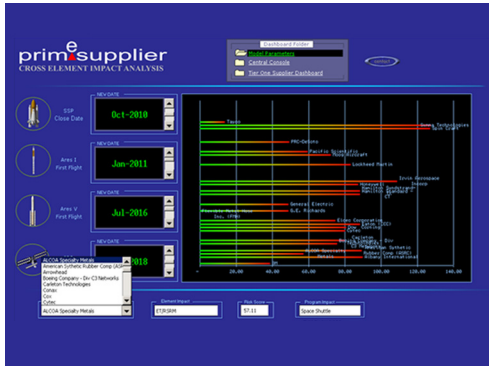




John F. Kennedy Space Center's PrimeSupplier Cross Program Impact Analysis and Supplier Stability Indicator Simulation Model



The National Aeronautics and Space Administration (NASA) seeks partners interested in the commercial application of the PrimeSupplier. PrimeSupplier is a next-generation hybrid supply chain management software application that uses programmatic/enterprise demand information, as well as industry financial benchmarks, to efficiently and effectively forecast economic influences on the product and supplier viability through the product life cycle. PrimeSupplier was initially developed for Shuttle Program transition activities in an effort to view early indicators of supplier and product line stability while identifying the various project elements and/or programs affected by contract terminations. The model calculates two categories of benchmarks: One category focusing on the enterprise's programmatic supportability demands; the other focuses on the supplier's financial liquidity posture. The tool supports the National Space Policy Presidential Directive (PD49) for Industrial Base Management by making it easier to understand the multiple program requirements, economic influences and other budgetary scenarios necessary for supporting a healthy industrial base.

BENEFITS

- Minimizes nonrecurring indirect-touch labor costs throughout the system life cycle
- Allows for consolidated funding visibility while minimizing "maverick" procurement activity
- Improves order fulfillment and on-time delivery through early demand planning
- Increases responsiveness from increased demand/supply visibility
- Enhances ability to react to unplanned change requirements
- Simulates optimum timing for placing new procurement orders
- Optimizes traditional logistics sparing activity by eliminating redundant inventory
- Excellent for Integrated Manufacturing Network / Supplier City and procurement simulation

technology ■ opportunity

APPLICATIONS

- Additional toolset for supply chain management collaborative forecast demand planning
- Enhancement to current ERP and MRP systems
- Stand-alone industrial base monitoring tool, to include supplier sub-tier levels

TECHNOLOGY STATUS

- ☒ Patent pending
- ☐ U.S. patent
- ☐ Copyrighted
- ☒ Available to license
- ☐ Available for no-cost transfer
- ☐ Seeking industry partner for further codevelopment

Technology Details

PrimeSupplier, a supplier cross program and element impact simulation model, has been developed so that the Shuttle Program can see an early indicator of supplier and product line stability while identifying the various elements and/or programs that have a particular supplier or product designed into the system.

PrimeSupplier analyzes causes and effects of the supply chain with parameters based on a supplier's financial liquidity, quality measures of performance, and other internal programmatic data relative to each functional capability of Source, Make, Buy, Repair and Deliver. The goal is to get a comprehensive picture of schedule impact and funding risk from supplier obsolescence or requests for additional time-gap funding.

Development was motivated by the Space Shuttle Program transition cross-cutting lead for supply chain management as a tool to effectively assess the time-gap risk between the NASA manned spaceflight programs. The technology was tested with real-life transition application, but further data source integration is desired. PrimeSupplier is the first demand planning or supplier stability indicator model to include programmatic demand influence alongside financial benchmarks for determining future product or supplier economic stability.

Partnership Opportunities

NASA has applied for a U.S. patent on the PrimeSupplier Cross Program Impact Analysis and Supplier Stability Indicator Simulation Model system and is seeking licensees of the patent. NASA has the authority to grant licenses on its domestic and foreign patents and patent applications pursuant to 35 U.S.C. 207-209. NASA has implemented this authority by means of the NASA Patent Licensing Regulations, 37 CFR § 404. All NASA licenses are individually negotiated with the prospective licensee, and each license contains terms concerning commercialization (practical application), license duration, royalties, and periodic reporting. NASA patent licenses may be exclusive, partially exclusive, or nonexclusive. If your company is interested in the new PrimeSupplier Cross Program Impact Analysis and Supplier Stability Indicator Simulation Model technology, or if you desire additional information, please reference Case Number KSC-13185 and contact:

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